

Title (en)
USE OF RAMAN SPECTROSCOPY TO MONITOR CULTURE MEDIUM

Title (de)
VERWENDUNG VON RAMAN-SPEKTROSKOPIE ZUR ÜBERWACHUNG EINES KULTURMEDIUMS

Title (fr)
UTILISATION DE SPECTROSCOPIE RAMAN POUR SURVEILLER UN MILIEU DE CULTURE

Publication
EP 2972238 A4 20161116 (EN)

Application
EP 14765091 A 20140314

Priority
• US 201361798187 P 20130315
• US 2014029633 W 20140314

Abstract (en)
[origin: WO2014144999A1] In one aspect, the disclosure provides a method of defining a Raman signature of a culture component, the method comprising: obtaining a Raman spectrum of a culture component in a non-interfering or minimally-interfering solution, identifying peaks in the Raman spectrum that are associated with the culture component, obtaining a Raman spectrum of a culture medium comprising the culture component, and, removing peaks of the culture component in the Raman spectrum of the culture medium that are distorted compared to the peaks identified in the Raman spectrum of the culture component in a non-interfering or minimally-interfering solution.

IPC 8 full level
G01N 21/65 (2006.01); **G01J 3/44** (2006.01)

CPC (source: EP US)
G01J 3/44 (2013.01 - EP US); **G01N 21/65** (2013.01 - EP US); **G01N 2201/0446** (2013.01 - US); **G01N 2201/06113** (2013.01 - US)

Citation (search report)
• [XY] WO 2012059748 A1 20120510 - UNIV NOTTINGHAM [GB], et al
• [XY] US 2004180379 A1 20040916 - VAN DUYNE RICHARD P [US], et al
• [XY] US 2009046284 A1 20090219 - WANG HONH [US], et al
• [Y] US 2009063101 A1 20090305 - YESHWANTPUR ABHIJIT [US], et al
• [Y] US 2006281068 A1 20061214 - MAIER JOHN S [US], et al
• [Y] US 2010114514 A1 20100506 - WANG HONG [US], et al
• [Y] US 2001034478 A1 20011025 - LAMBERT JAMES L [US], et al
• [Y] US 2012316446 A1 20121213 - VUKELIC SINISA [US]
• [Y] WO 0233388 A1 20020425 - GEN ELECTRIC [US]
• [E] WO 2016004322 A2 20160107 - BIOGEN MA INC [US]
• [E] US 2014185033 A1 20140703 - MORETTO JUSTIN [US]
• [XY] BOYAN LI ET AL: "Using surface-enhanced Raman scattering (SERS) and fluorescence spectroscopy for screening yeast extracts, a complex component of cell culture media", JOURNAL OF RAMAN SPECTROSCOPY, vol. 43, no. 8, 22 December 2011 (2011-12-22), GB, pages 1074 - 1082, XP055303722, ISSN: 0377-0486, DOI: 10.1002/jrs.3141
• [XY] BOYAN LI ET AL: "Rapid characterization and quality control of complex cell culture media solutions using raman spectroscopy and chemometrics", BIOTECHNOLOGY AND BIOENGINEERING, vol. 107, no. 2, 20 May 2010 (2010-05-20), pages 290 - 301, XP055194693, ISSN: 0006-3592, DOI: 10.1002/bit.22813
• [Y] WITJES H ET AL: "Automatic correction of peak shifts in Raman spectra before PLS regression", CHEMOMETRICS AND INTELLIGENT LABORATORY SYSTEMS, ELSEVIER SCIENCE PUBLISHERS B.V. AMSTERDAM, NL, vol. 52, no. 1, 14 August 2000 (2000-08-14), pages 105 - 116, XP004228885, ISSN: 0169-7439, DOI: 10.1016/S0169-7439(00)00085-X
• See references of WO 2014144999A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2014144999 A1 20140918; DK 2972238 T3 20230619; EP 2972238 A1 20160120; EP 2972238 A4 20161116; EP 2972238 B1 20230426; US 11249026 B2 20220215; US 2016025633 A1 20160128; US 2023175967 A1 20230608

DOCDB simple family (application)
US 2014029633 W 20140314; DK 14765091 T 20140314; EP 14765091 A 20140314; US 201414775255 A 20140314; US 202217885167 A 20220810